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10/762,916	01/22/2004	Daniel Manuel Dias	SVL920030091US1/4181P	6138

  

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EXAMINER	
PARK, JEONG S	

  

ART UNIT	PAPER NUMBER
2154	

  

NOTIFICATION DATE	DELIVERY MODE
10/11/2007	ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patent@sawyerlawgroup.com  
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## Office Action Summary

Application No.

10/762,916

Applicant(s)

DIAS ET AL.

Examiner

Jeong S. Park

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 January 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>1/22/2004</u> .   | 6) <input type="checkbox"/> Other: _____                          |

## DETAILED ACTION

### *Claim Objections*

1. Claims 1-12 and 18 are objected to because of the following informalities:

In claim 1, line 6, the phrase "the checksum segment" should be corrected as – the checksum symbol segment-- for clear understanding of the claim; and

In claim 18, line 1, the phrase "an input symbol segment" should be corrected as –the input symbol segment-- for clear understanding of the claim.

Appropriate correction is required.

### *Claim Rejections - 35 USC § 101*

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

3. Claims 14-23 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Independent claim 14 is drawn towards a computer program product having instruction codes. This is just an abstract idea can be written in a computer programming code. The computer program product defined in the specification is not in one of the statutory categories. The specification provides no explicit and deliberate definition of the computer program product.

Claims 15-23, which are dependent on claim 14, do not add any further definition of the computer program product to the claim and thus are rejected for the same reason.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 5-7, 11-14, 17-19, 22-24 and 28-32 are rejected under 35

U.S.C. 102(e) as being anticipated by Masters et al. (hereinafter Masters)(U.S. Patent No. 7,051,098 B2).

Regarding claims 1, 14 and 24, Masters teaches as follows:

a method for supporting a transaction application and a parallel application (at least one task too complex for a single computer to perform, wherein the task inherently includes any kind of applications, see, e.g., col. 1, lines 24-34) in a clustered system that utilizes a service level agreement (the Resource Management Architecture provides the capability of dynamically allocating, and reallocating, applications to hosts as needed in order to maintain user-specified system performance goals, see, e.g., col. 4, lines 12-17), the method comprising:

monitoring a performance of the clustered system (host monitors monitor the status and performance of hosts A-N, see, e.g., col. 10, lines 18-39) in response to the transaction application (application-level instrumentation function group FG2 in figure 2B provides capabilities for collecting and correlating application-provided data such as

application statues, states, performance and internally detected errors, see, e.g., col. 12, lines 1-19), based on the service level agreement (QoS: quality of service) and a workload (host load analyzer FG40 figure 2A, see, e.g., col. 18, lines 39-41) of the clustered system (the data collected from the application-level instrumentation function group FG2 is sent to QoS managers FG44A-FG44N in figure 2A to determine the performance based on the QoS defined for each application, see, e.g., col. 13, lines 1-36);

analyzing the performance of the clustered system to identify a violation of the service level agreement, if any, by the clustered system (QoS managers FG44A-FG44N determine if applications are satisfying their assigned requirements, see, e.g., col. 37, lines 39-47);

in response to the identified violation, dynamically reallocating a computing resource assigned to the parallel application to the transaction application that requires an additional computing resource to meet the service level agreement (when an application is not meeting its performance requirements the QoS managers will request the resource manager FG42 scale up a new copy or move the application to a new host, see, e.g., col. 37, lines 47-58); and

resource allocation decision-making (FG4 in figure 2A) determines the health and state of the distributed environment and the options that are available for attempting to recover from faults or unacceptable performance, see, e.g., col. 8, lines 9-34).

Regarding claims 5, 17 and 28, Masters teaches as follows:

the service level agreement defines an acceptable performance of the clustered

system in response to the transaction application (when an application is not meeting its performance requirements the QoS managers will request the resource manager FG42 scale up a new copy or move the application to a new host, see, e.g., col. 37, lines 47-58).

Regarding claims 6, 18 and 29, Masters teaches as follows:

the service level agreement defines an acceptable performance of the clustered system in response to the parallel application (when an application is not meeting its performance requirements the QoS managers will request the resource manager FG42 scale up a new copy or move the application to a new host, see, e.g., col. 37, lines 47-58 and col. 18, lines 42-47); and

QoS manager monitors all of the requirements associated with a single application path defined in the system specification files (FG32 in figure 2A, see, e.g., col. 15, lines 17-36)(see, e.g., col. 37, lines 59-65).

Regarding claims 7, 19, 30 and 32, Masters teaches as follows:

the violation comprises an actual violation of the service level agreement by the performance of the clustered system (see, e.g., col. 39, lines 3-19).

Regarding claims 11 and 22, Masters teaches as follows:

provisioning the computing resource to execute the transaction application (QoS managers will request the resource manager FG42 move the application to a new host, see, e.g., col. 37, lines 47-58).

Regarding claims 12 and 23, Masters teaches as follows:

provisioning the computing resource to execute the parallel application (QoS

managers will request the resource manager FG42 move the application to a new host, see, e.g., col. 37, lines 47-58).

Regarding claim 13, Masters teaches as follows:

diverting a portion of the workload (application) to the computing resource (QoS managers will request the resource manager FG42 move the application to a new host, see, e.g., col. 37, lines 47-58).

Regarding claim 31, Masters teaches as follows:

a method for supporting a transaction application and a parallel application (at least one task too complex for a single computer to perform, wherein the task inherently includes any kind of applications, see, e.g., col. 1, lines 24-34) by a clustered system that implements a service level agreement (user-specified system performance goals, see, e.g., col. 4, lines 12-17 and Quality of Service (QoS)), the method comprising:

specifying a performance parameter for the service level agreement (host monitors monitor the status and performance of hosts A-N, see, e.g., col. 10, lines 18-39);

system specification files (FG32 in figure 2A) are created by the user and provide a method of the software and hardware components configuration of the distributed computing environment for each application (see, e.g., col. 15, lines 11-60);

invoking a server allocation utility, wherein the performance parameter is made available to the server allocation utility for allocating computing resources to meet the service level agreement (the Resource Management Architecture provides the capability of dynamically allocating, and reallocating, applications to hosts as needed in

order to maintain user-specified system performance goals, see, e.g., col. 4, lines 12-17); and

receiving a level of performance by the clustered system within the parameter of the service level agreement for a contracted execution of the transaction application and the parallel application, wherein in response to a violation of the service level agreement (when an application is not meeting its performance requirements the QoS managers will request the resource manager FG42 scale up a new copy or move the application to a new host, see, e.g., col. 37, lines 47-58), the server allocation utility dynamically reallocates a computing resource that is assigned to the parallel application, to the transaction application that requires an additional computing resource (resource allocation decision-making FG4 in figure 2A determines the health and state of the distributed environment and the options that are available for attempting to recover from faults or unacceptable performance, see, e.g., col. 8, lines 9-34).

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 8-10, 20, 21 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masters et al. (hereinafter Masters)(U.S. Patent No. 7,051,098 B2) as applied to claims 1, 14 and 31 above, and further in view of Gopalan et al. (hereinafter Gopalan)(U.S. Pub. No. 2003/0208523 A1).



Regarding claims 8, 9, 20, 21 and 33 Masters teaches as follows:

history servers (40 in figure 1A) is used to drive line graph charts for specific hosts selected at the host display in order to provide CPU load information, network load information and memory utilization information (see, e.g., col. 46, lines 40-61).

Even though Masters teaches implicitly the claim limitation, Gopalan explicitly teaches as follows:

a predictive real-time Service Level Agreements (SLAs) monitoring system by a detailed analysis of traffic flows with reduced monitor data flow across network;

a suitable combination of offline and real-time processing of historical and current traffic data;

the system analyzes the historical traffic patterns of a network to determine a set of critical SLAs; and

the system analyzes the gathered data from the master and slave probes to forecast future violations of the SLA and generate operator SLA violation alarms (see, e.g., abstract).

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Masters to include predictive real-time SLAs monitoring system as taught by Gopalan in order to efficiently analyze the historical traffic patterns, forecast future violations of the SLAs and generate operator SLA violation alarms.

Regarding claim 10, Masters teaches as follows:

the computing resource comprises an under-utilized computing resource (networked computers cooperate in performing at least one task too complex for a

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single computer to perform, wherein it is inherent to have under utilized computer among the networked computers, see, e.g., col. 1, lines 24-34, see, e.g., col. 5, lines 33-39).

8. Claims 2-4, 15, 16 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Masters et al. (hereinafter Masters)(U.S. Patent No. 7,051,098 B2) as applied to claims 1, 14 and 24 above, and further in view of Merkling et al. (hereinafter Merkling)(U.S. Patent No. 5,841,869).

Regarding claims 2-4, 15, 16 and 25-27, Masters teaches as follows:

networked computers cooperate in performing at least one task too complex for a single computer to perform, wherein the task inherently includes at least one complex applications (see, e.g., col. 1, lines 24-34); and

system specification files (FG32 in figure 2A) are created by the user and provide a method of the software and hardware components configuration of the distributed computing environment for each application (see, e.g., col. 15, lines 11-60).

Even though Masters teaches implicitly the claim limitation, Merkling further teaches as follows:

heavy transactions applications and parallel applications often require dynamic process migration and load balancing to meet the fundamental properties required for such resource management (see, e.g., col. 12, lines 18-31).

It would have been obvious for one of ordinary skill in the art at the time of the invention to modify Masters to include managing both transaction and parallel applications under same resource management as taught by Merkling in order to

efficiently allocate different application process to the proper host computer(s) in grid environment.

### ***Conclusion***

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeong S. Park whose telephone number is 571-270-1597. The examiner can normally be reached on Monday through Thursday 7:30 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on 571-272-1915. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

### ***Double Patenting***

10. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to

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identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

NATHAN FLYNN  
SUPERVISORY PATENT EXAMINER

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

11. Claims 1-33 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-33 of copending Application No. 10/763,135.

Because the copending application teaches all the limitations of the applicant's claims as listed above.

This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

JP

September 15, 2007